

APS WK#2: Bright Perspectives of Inelastic X-ray Scattering in the Post-APS-U Era

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The Advanced Photon Source is home to various state-of-the-art high-resolution inelastic x-ray scattering (IXS) methods. Among them, momentum-resolved meV inelastic x-ray scattering, resonant inelastic x-ray scattering, and nuclear resonant inelastic x-ray scattering methods all have dedicated beamline at APS. These spectroscopy techniques are powerful in providing unique information on atomic dynamics and electronic excitations in condensed matter under ambient and extreme thermodynamic conditions. These methods are growing and have gained popularity in the last decade and have many reasons to look forward to the realization of the APS Upgrade project. The timing of the workshop coincides with the start of the APS upgrade's shutdown which will help users be informed about the new APS ring and stay engaged.

The workshop will be run in three half-day sessions, focusing on resonant inelastic x-ray scattering (RIXS) at 27-ID, momentum-resolved high energy resolution inelastic x-ray scattering (HERIX) at 30-ID and nuclear resonant scattering (NRS) at both 3-ID and 30-ID, respectively. The status, future development, and user applications at the post-APS-U period will be presented and discussed.